## **ABSTRACT**

Subroutines embedded in the software gather data during execution on a multiprocessor system with a shared resource. The data gathered relates to data contention (collisions) between processes in competing for the shared resource. Such data includes the number of collisions, the type of collisions, how much processing time is wasted by collisions, and how much processing time is used by successfully executed processes. After the data is gathered, this can be compiled and offloaded to a separate computer which calculates the software's performance relative to its shared resource.